microwave input to the space, a microwave output from the space and a first conductive ring located within the space to produce the first resonance.

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- **5**. A monitor according to claim **4**, wherein the housing includes a second conductive ring located within the space to 5 produce the second resonance.
- 6. A monitor according to claim 5, wherein the second ring is located further from the opening than is the first ring.
- 7. A monitor according to claim 1, wherein the resonator is a double ring resonator such that the resonant response shows 10 said first and second resonances.
- **8**. A monitor according to claim **7**, wherein the resonator has an opening to which said body can be offered to facilitate said perturbation.
- **9.** A monitor according to claim **1**, wherein the detector is arranged to measure one from a group consisting of a resonant frequency, a width, a Q-factor and a height of a resonance in said response.
- 10. A monitor according to claim 1, wherein the detector is arranged to measure two or more from a group consisting of 20 a resonant frequency, a width, a Q-factor and a height of a resonance in said response.
- 11. A monitor according to claim 10, wherein the detector is arranged to measure the resonant frequency of a resonance in said response and one or more from a group consisting of 25 a frequency width, a Q-factor and a height of the resonance.

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